

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Canceled).

Claim 2 (Currently Amended): A thermally-assisted magnetic recording head capable of recording information magnetically on a recording medium, comprising:

a laser device configured to emit a light to heat the recording medium to reduce a magnetic coercive force thereof;

a light absorbing film provided between the laser device and the recording medium, the light absorbing film having an aperture through which the light is applied to the recording medium;

a magnetic pole configured to record the information magnetically on the recording medium by applying a recording magnetic field to the recording medium having the reduced coercive force; and

an optical light collecting unit configured to asymmetrically converge the light emitted from a light emitting face of the laser device and to direct the converged light into the aperture,

the aperture being adapted so that a polarizing direction of the light emitted from the laser device is approximately perpendicular to a direction along a longitudinal extension of recording tracks formed on the recording medium,

a width W1 of the aperture taken along the polarizing direction being smaller than a width W2 of the aperture taken approximately perpendicular to the polarizing direction,

the width W1 being shorter than 1/2 of a wavelength at the center of a spectrum of the light emitted from the laser device, and

the optical light collecting unit shifting a peak of a distribution of a light intensity of the converged light from a first position to a second position due to the asymmetrical convergence, the second position being closer to the magnetic pole than the first position.

Claim 3 (Previously Presented): The thermally-assisted magnetic recording head according to claim 2, further comprising a dielectric film provided between the laser device and the light absorbing film.

Claim 4 (Previously Presented): The thermally-assisted magnetic recording head according to claim 3, wherein an optical film thickness of the dielectric film is in a range from 0.05λ to 0.35λ relative to the wavelength λ of the light emitted from the laser device.

Claim 5 (Previously Presented): The thermally-assisted magnetic recording head according to claim 2, wherein the width $W1$ is within a range in which an absorption loss through the aperture of light having an electric field vector perpendicular to the direction of the aperture width $W1$ is 10 times as much as an absorption loss through the aperture of light having a magnetic field vector perpendicular to the direction of the aperture width $W1$, or even higher.

Claim 6 (Previously Presented): The thermally-assisted magnetic recording head according to claim 2, wherein the laser device is a semiconductor laser device of which laser oscillation mode is a TM mode.

Claim 7 (Previously Presented): The thermally-assisted magnetic recording head according to claim 2, further comprising an optical light collector which converges the light emitted from the laser device to direct it into the aperture.

Claim 8 (Previously Presented): The thermally-assisted magnetic recording head according to claim 2, wherein the aperture is filled with dielectric or semiconductor material.

Claims 9-19 (Canceled).

Claim 20 (Previously Presented): The thermally-assisted magnetic recording head according to claim 2, wherein the aperture has a rectangular shape.

Claim 21 (Currently Amended): A thermally-assisted magnetic recording apparatus capable of recording information magnetically on a recording medium, comprising:

a thermally-assisted magnetic recording head; and

an actuating mechanism configured to move the recording medium and the magnetic recording head relative to each other,

wherein the thermally-assisted magnetic recording head includes:

a laser device configured to emit a light to heat the recording medium to reduce a magnetic coercive force thereof;

a light absorbing film provided between the laser device and the recording medium, the light absorbing film having an aperture through which the light is applied to the recording medium;

a magnetic pole configured to record the information magnetically on the recording medium by applying a recording magnetic field to the recording medium having the reduced coercive force; and

an optical light collecting unit configured to asymmetrically converge the light emitted from a light emitting face of the laser device and to direct the converged light into the aperture,

the aperture being adapted so that a polarizing direction of the light emitted from the laser device is approximately perpendicular to a direction along a longitudinal extension of recording tracks formed on the recording medium,

a width of the aperture taken along the polarizing direction being smaller than a width of the aperture taken approximately perpendicular to the polarizing direction, and the width W1 being shorter than 1/2 of a wavelength at the center of a spectrum of the light emitted from the laser device, and

the optical light collecting unit shifting a peak of a distribution of a light intensity of the converged light from a first position to a second position due to the asymmetrical convergence, the second position being closer to the magnetic pole than the first position.

Claim 22 (Previously Presented): The thermally-assisted magnetic recording apparatus according to claim 21, further comprising a recording medium,

the recording medium including a record layer in which magnetic information is recorded, and an antireflection layer made of dielectric or semiconductor material deposited over the record layer.

Claim 23 (Previously Presented): The thermally-assisted magnetic recording head according to claim 2, wherein the light absorbing film has a flattened surface.

Claim 24 (Previously Presented): The thermally-assisted magnetic recording apparatus according to claim 21, wherein the light absorbing film has a flattened surface.

Claim 25 (Previously Presented): The thermally-assisted magnetic recording head according to claim 2, wherein the optical light collecting unit is a diffraction grating lens having an eccentric deployment.

Claim 26 (Previously Presented): The thermally-assisted magnetic recording head according to claim 2, wherein the optical light collecting unit has an asymmetrical distribution of a refractive index.

Claim 27 (Previously Presented): The thermally-assisted magnetic recording apparatus according to claim 21, wherein the optical light collecting unit is a diffraction grating lens having an eccentric deployment.

Claim 28 (Previously Presented): The thermally-assisted magnetic recording apparatus according to claim 21, wherein the optical light collecting unit has an asymmetrical distribution of a refractive index.